

Appln No.: 09/993,733

Docket no. 07083-1-007200

**BEST AVAILABLE COPY**Amendments/listing of the Claims:

Claim 1. (Currently amended) A system for converting a conventional, non-wireless electrocardiograph monitoring system to a wireless electrocardiograph monitoring system comprising:

a body electronics unit for acquiring electrical signals from a chest or precordial assembly and wirelessly transmitting the electrical signals to a base station, the base station having a plurality of terminals for directly transmitting the electrical signals to any conventional electrocardiograph monitor, the base station having a user interface for communicating information to the user and further comprising an apparatus for pairing the base station with the body electronics unit wherein the apparatus is a token key being physically separable from said body electronics unit and said base station.

Claims 2-3 (Cancelled)

Claim 4. (Original) The system of claim 1 wherein the base station controls the data collected by the chest assembly.

Claim 5. (Currently amended) A system for monitoring cardiac activity in a patient comprising, in combination:

~~an chest~~ assembly having a plurality of electrode connectors removably connected to a plurality of electrodes that detect electrical signals from a patient's heart;

a body electronics unit removably connected to the ~~chest~~ assembly, the body electronics unit acquiring the electrical signals from the ~~chest~~ assembly and transmitting the electrical signals to a base station via radio transmission, the body electronics unit having a user interface for communicating information to the user;

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the base station including a receiver for receiving the electrical signals and a plurality of terminals for directly connecting to an electrocardiograph monitor via monitor cables, the base station having a user interface for communicating information to the user and further comprising a token key for pairing the body electronics unit with the base station, said token key being physically separable from said body electronics unit and said base station.

Claim 6. (Original) The system of claim 5 wherein the user interfaces of the body electronics unit and the base station communicate information pertaining to the system's operating status.

Claim 7. (Cancelled)

Claim 8. (Original) The system of claim 5 wherein the base station includes a cradle for storing the body electronics unit.

Claim 9. (Original) The system of claim 1 wherein the chest assembly has five electrode connectors for connecting to electrodes.

Claim 10. (Original) The system of claim 9 wherein an electrode is positioned on the right side of a patient's chest about level of the first and second intercostal space, an electrode is positioned on the left side of the patient's chest about level of the first and second intercostals space, an electrode is positioned in the middle of the patient's chest about level of the fourth and fifth intercostals space, and two electrodes are positioned on the left side of the patient's torso.

Claim 11. (Original) The system of claim 1 wherein the on body electronics unit and the base station each have a battery port for removably retaining a battery.

Claim 12. (Original) The system of claim 11 wherein the battery is compatible with the battery port of the body electronics unit and the battery port of the base station.

Claim 13. (Cancelled)

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Claim 14. (Currently amended) A system for monitoring cardiac activity in a patient comprising, in combination:

a chest assembly having a plurality of electrode connectors removably connected to a plurality of electrodes that detect electrical signals from a patient's heart;

a precordial assembly having a plurality of electrode connectors removably connected to a plurality of electrodes that detect electrical signals from a patient's heart;

a body electronics unit removably connected to the chest assembly connector and the precordial assembly connector, the body electronics unit receiving the electrical signals from the chest assembly and the precordial assembly;

a base station for acquiring the electrical signals from the body electronics unit via radio frequency transmission, the base station having a plurality of terminals for connecting to electrocardiograph monitor cables, the electrical signals transmitted to an electrocardiograph monitor via the electrocardiograph monitor cables further comprising a token key for pairing the body electronics unit with the base station wherein said token key is physically separable from said body electronics unit and said base station.

Claim 15. (Cancelled)

Claim 16. (Original) The system of claim 14 wherein the body electronics unit includes a user interface for communicating information to the user.

Claim 17. (Original) The system of claim 14 wherein the base station includes a user interface for communicating information to the user.

Claim 18. (Original) The system of claim 14 wherein the base station includes a cradle for storing the body electronics unit.

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Claim 19. (Currently amended) A system for wireless transmission of physiological signals from a physiological sensor to a monitor comprising:

a body electronics unit, the physiological sensor removably coupled to the body electronics unit, the physiological signals transmitted to the body electronics unit whereby the body electronics unit wirelessly transmits the physiological signals to a base station, the base station having a plurality of terminals for directly transmitting the physiological signals to any conventional monitor, the base station having a user interface for communicating information to the user and further comprising a token key for pairing the body electronics unit with the base station, said token key physically separable from said body electronics unit and said base station.

Claim 20. (Cancelled)

Claim 21. (Currently amended) A system for wireless transmission of physiological signals from a physiological sensor to a monitor comprising:

a body electronics unit, the physiological sensor removably coupled to the body electronics unit, wherein measurement of physiological signals is activated by completion of a circuit formed between the body electronics unit and a connector on the physiological sensor; and, wherein power to the body electronics unit is activated by completion of the circuit

~~an apparatus for wirelessly pairing the body electronics unit to the physiological sensor.~~

Claims 22-23. (Cancelled)

Claim 24. (Original) The system of claim 21 wherein the body electronics unit includes a tongue that corresponds to a groove in the physiological sensor connector.

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Claim 25. (Currently amended) The system of claim 23 21 wherein the physiological ~~sensor~~ sensor connector includes a tongue that corresponds to a groove in the body electronics unit.

Claim 26. (Original) The system of claim 19 wherein the physiological signals pertain to information selected from the group consisting of pulse, respiration rate, heart rate, temperature, EEG signals, and pulse oximeter signals.

Claim 27. (Original) The system of claim 21 wherein the physiological signals pertain to information selected from the group consisting of pulse, respiration rate, heart rate, temperature, EEG signals, and pulse oximeter signals.

Claims 28-65 (Cancelled)

Claim 66. (Currently amended) A body electronics unit for use in a system for monitoring cardiac activity in a patient comprising:

a chest assembly port for removably receiving a chest assembly connector attached to a chest assembly, the chest assembly connector including a sensor pin that completes a circuit within the body electronics unit wherein the power of said body electronics unit is activated when the chest assembly connector is inserted into the chest assembly port, wherein electrical signals detected from a patient's heart are transmitted to the body electronics unit via the chest assembly, wherein said body electronics unit transmits signals ~~to a base station~~ via radio transmission.

Claim 67. (Original) The body electronics unit of claim 66 further comprising a user interface for communicating information to a user.

Claim 68. (Original) The body electronics unit of claim 67 wherein the information pertains to the system's operating status.

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Claims 69-70. (Cancelled)

Claim 71. (Currently amended) The body electronics unit of claim 66 further comprising a lead-off function for continuously monitoring the integrity of connections between electrode connectors and electrodes.

Claim 72. (Cancelled)

Claim 73. (Original) The body electronics unit of claim 66 further comprising a self test function for monitoring the integrity of the system's functions.

Claims 74-75. (Cancelled)

Claim 76. (Original) The body electronics unit of claim 66 further comprising a precordial assembly port for removably receiving a precordial assembly connector attached to a precordial assembly, wherein electrical signals detected from the patient's heart are transmitted to the body electronics unit via the precordial assembly.

Claim 77. (Currently amended) The body electronics unit of claim ~~66~~76 further comprising a transmitter for receiving electrical signals from the chest assembly and the precordial assembly and for transmitting the electrical signals via radio transmission to the base station.

Claim 78. (Original) The body electronics unit of claim 66 further comprising a battery port for removably receiving a body electronics unit battery.

Claim 79. (Original) The body electronics unit of claim 78 wherein the body electronics unit battery is interchangeable with a base station battery.

Claim 80. (Original) The body electronics unit of claim 66 wherein the body electronics unit is removeably secured to a patient via an armband.

Claim 81. (Cancelled)

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Claim 82. (Currently amended) A method of pairing the body electronics unit of claim ~~175~~

~~wherein a user pairs the body electronics unit~~ with the base station by: ~~inserting the token key into a token key port of the base station to record an~~

inserting the token key into a token key port of the base station to record an  
identification number of the base station;

removing the token key from the token key port of the base station;

inserting the token key into the token key port of the body electronics unit to record an  
identification number of the body electronics unit and to transmit the identification number of  
the base station to the body electronics unit;

removing the token key port from the token key port of the body electronics unit;

and inserting the token key into the token key port of the base station to transfer the  
identification number of the body electronics unit to the base station.

Claim 83. (Currently amended) A method of pairing the body electronics unit of claim ~~175~~

~~wherein a user pairs the body electronics unit~~ with the base station by

inserting the token key into the token key port of the body electronics unit to record an  
identification number of the body electronics unit;

removing the token key from the token key port of the body electronics unit;

inserting the token key into a token key port of the base station to record an  
identification number of the base station and to transmit the identification number of the body  
electronics unit to the base station;

removing the token key port from the token key port of the base station; and

inserting the token key into the token key port of the body electronics to transfer the  
identification number of the base station to the body electronics unit.

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Claim 84. (Original) The body electronics unit of claim 66 further comprising a resistor connected to the chest assembly port to prevent excessive electrical current from entering the body electronics unit, thereby permitting the body electronics unit to withstand a defibrillation shock.

Claim 85. (Currently amended) A base station for use in a system for monitoring cardiac activity in a patient comprising:

a receiver for receiving electrical signals sent from a body electronics unit; and

a plurality of terminals for directly connecting to conventional electrocardiograph monitor cables for transmitting the electrical signals to an conventional electrocardiograph monitor.

Claim 86. (Original) The base station of claim 85 further comprising a user interface for communicating information to a user.

Claim 87. (Original) The base station of claim 86 wherein the information pertains to the system's operating status.

Claims 88-91. (Cancelled)

Claim 92. (Original) The base station of claim 85 further comprising a battery port for removably receiving a base station battery.

Claim 93. (Original) The base station of claim 92 wherein the base station battery is interchangeable with a body electronics unit battery.

Claim 94. (Original) The base station of claim 85 further comprising a lead switch for instructing the base station to operate in either a 7 lead mode or 12 lead mode.

Claim 95. (Original) The base station of claim 85 wherein the base station is removably secured to an ECG monitor.



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Claims 96-98. (Cancelled)

Claim 99. (Currently amended) A method of monitoring the cardiac activity in a patient

comprising the steps of:

positioning a chest assembly on a patient's body, the chest assembly having a plurality of electrode connectors for connecting to a plurality of electrodes;

plugging the chest assembly into a body electronics unit, the body electronics unit having a user interface that communicates information to a user and wherein the body electronics unit is activated by plugging the chest assembly into the body electronics unit;

pairing the body electronics unit with a base station through the use of a token key;

detecting electrical signals from the patient's heart with the chest assembly;

transmitting the electrical signals from the chest assembly to the body electronics unit;

transforming the electrical signals from analog signals into digital signals;

transmitting the digital signals to the base station via radio transmission, the base station having a user interface for communicating information to the user and a plurality of terminals for transmitting the electrical signals to an electrocardiograph monitor;

transforming the digital signals into analog signals; and

transmitting the analog signals directly to the electrocardiograph monitor via the terminals.

Claims 100-104. (Cancelled)